In the claims:

1. (Previously Presented) An adaptive collision load path modification system for a vehicle comprising:

a plurality of object detection sensors generating object detection signals in response to at least one object external to the vehicle;

at least one structural stiffness-adjusting device coupled within a frame rail of the vehicle; and

a controller coupled to said plurality of object detection sensors and said structural stiffness-adjusting device and activating said at least one structural stiffness-adjusting device in response to said object detection signals;

wherein said at least one structural stiffness-adjusting device comprises an outer body at least partially filled with a magneto-rheological material that stiffens said frame rail when activated to increase alteration resistance of said frame rail as a result of colliding with said at least one object.

2. (Original) A system as in claim 1 wherein said object detection signals comprise collision detection information.

3. (Original) A system as in claim 1 further comprising contact sensors generating collision detection signals, said controller activating said at least one structural stiffness-adjusting device in response to said collision detection signals.

4. (Original) A system as in claim 3 wherein said contact sensors are selected from at least one of a discretized patch sensor and an accelerometer.

5. (Original) A system as in claim 1 wherein said object detection sensors are selected from at least one of a vision sensor, a radar sensor, a lidar sensor, and a contact sensor.

6. (Previously Presented) A system as in claim 1 wherein said at least one structural stiffness-adjusting device comprises at least one air bag.

Claim 7 canceled.

8. (Previously Presented) A system as in claim 13 wherein said controller activates said at least one tire deflation apparatus in response to at least one collision object parameter selected from speed, heading, size, weight, and location, relative to the vehicle.

9. (Original) A system as in claim 1 wherein said at least one structural stiffness-adjusting device is coupled within a frame rail kick-up area.

10. (Original) A system as in claim 1 wherein said at least one structural stiffness-adjusting device is coupled within a front rail between a front suspension attachment points and an occupant compartment of the vehicle.

11. (Original) A system as in claim 1 further comprising at least one tire deflation apparatus coupled to said controller, said controller activating said at least one tire deflation apparatus to at least partially deflate at least one tire on the vehicle in response to said object detection signals.

12. (Original) A system as in claim 1 wherein said at least one structural stiffness-adjusting device comprises:

a first structural stiffness-adjusting device coupled within a left frame rail of the vehicle; and

a second structural stiffness-adjusting device coupled within a right frame rail of the vehicle;

said controller activating at least one of said first structural stiffness-adjusting device and said second structural stiffness-adjusting device in response to said object detection signals.

13. (Currently Amended) An adaptive collision load path modification system for a vehicle comprising:

a plurality of object detection sensors generating object detection signals;

at least one tire deflation apparatus; and

an electronic controller coupled to said plurality of object detection sensors and said tire deflation apparatus and activating said at least one tire deflation apparatus to at least partially deflate at least one tire on the vehicle in response to said object detection signals in order to modify load paths of a collision.

14. (Original) A system as in claim 13 further comprising a structural stiffness-adjusting device coupled to said controller and within a frame rail of the vehicle, said controller activating said structural stiffness-adjusting device in response to said object detection signals.

15. (Canceled)

16. (Original) A system as in claim 13 wherein said at least one tire deflation apparatus comprises:

a first tire deflation apparatus coupled to a left tire of the vehicle; and

a second tire deflation apparatus coupled to a right tire of the vehicle;

said controller activating at least one of said first tire deflation apparatus and said second tire deflation apparatus in response to said object detection signals.

17. (Currently Amended) A method of modifying collision load paths of a vehicle comprising:

generating object detection signals in response to at least one object external from the vehicle;

determining at least one object parameter comprising at least one of object size and object weight in response to said object detection signals; and

activating at least one structural stiffness-adjusting device within a frame rail of the vehicle to increase resistance of said frame rail in response to said at least one object parameter.

18. (Original) A method as in claim 17 further comprising at least partially deflating at least one tire on the vehicle.

19. (Original) A method as in claim 17 further comprising:

classifying at least one object;

determining velocity of said at least one object relative to the vehicle;

determining heading of said at least one object relative to the vehicle;

determining collision type in response to said heading;

assessing collision threat in response to said velocity and said collision type; and

activating at least one structural stiffness-adjusting device in response to said collision threat.

20. (Original) A method as in claim 17 wherein activating at least one structural stiffness-adjusting device comprises modifying a collision load path within at least one side of the vehicle.

21. (Previously Presented) A system as in claim 13 wherein said controller activates said at least one tire deflation apparatus in response to detection of a collision.

22. (Previously Presented) A system as in claim 13 wherein said controller deflates said at least one tire on a single side of the vehicle.